

IN THE CLAIMS

1. (Currently amended) Polyphase filter comprising:

at least two filters, each comprising a series admittance element and a shunt conductance element, each for filtering an input signal to produce a filtered signal at an output;

at least two integrators, each corresponding to one of said filters and coupled to said one of said filters, for integrating said filtered signals, each integrator comprising an operational amplifier having one input signal connected to a fixed reference potential;

wherein ~~said an~~ output of each integrator is coupled via an impedance element to an input of an adjacent integrator of said at least two integrators.

2. Polyphase filter according to claim 1, wherein an output of an integrator is coupled via a conductance element to an input of a previous integrator.

3. Polyphase filter according to claim 2, wherein an output of an integrator is coupled via a capacitor to an input of a next integrator.

4. Polyphase filter according to claim 3, wherein an integrator comprises an amplifier with an admittance element in a feedback path.

5. Polyphase filter according to claim 4, wherein a filter comprises a passive element and wherein an amplifier comprises an operational amplifier.

6. Polyphase filter according to claim 5, wherein a passive element comprises a resistor and a capacitor and wherein an admittance element comprises a capacitor and a conductance element coupled in parallel to each other.

7. Polyphase filter according to claim 6, wherein said polyphase filter comprises at least one signal inversion between integrators.

8. Integrator for use in a polyphase filter comprising at least two filters for filtering signals, wherein said filters are coupled to integrators for integrating filtered signals.

9. Receiver comprising a polyphase filter comprising at least two filters for filtering signals, wherein said filters are coupled to integrators for integrating filtered signals.